

**ROYAL
PHARMACEUTICAL
SOCIETY**

Post-registration Foundation Pharmacist Topic Guide



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Introduction

The RPS post-registration foundation pharmacist curriculum provides a framework for training and each outcome includes a set of descriptors which articulate the expected level and breadth of performance. The curriculum supports the continuum of practice, with pharmacists applying the knowledge they have gained from their initial education and training to increasingly complex people and situations.



TOPIC GUIDE

2.3 CORE CLINICAL ASSESSMENT SKILLS

CURRICULUM DOCUMENT

| | OUTCOMES |
|-----|--|
| 2.3 | Gathers information and takes histories proficiently; conducts clinical examinations and assessments; develops diagnostic skills |

It is assumed that all pharmacists entering a post-registration foundation training programme will have the underpinning knowledge and skills to meet the outcomes in the GPhC Standards for the initial education and training of pharmacists. These have been tested as part of the MPharm degree and foundation training year, and during the GPhC registration assessment.

- [GPhC Standards for the initial education and training of pharmacists](#)
- [GPhC registration assessment framework](#)

This guide covers areas of the curriculum which may require additional knowledge and/or skills to be able to demonstrate the outcomes at the required standard. Where this applies, the relevant outcomes in the *Capabilities, outcomes and descriptors* section of the curriculum are highlighted, and the information in this guide is numbered accordingly. See the example below. This guide also includes some examples of the types of evidence you could generate for different areas of the curriculum.

It is anticipated post-registration foundation programmes will signpost to resources relevant to their programme and geography.

The Gibbs' Reflective Cycle¹ is a useful model to give structure to learning from experiences. This can either be a stand-alone experience or repeated experiences. The post-registration foundation programme of assessment supports this model by using supervised learning events to facilitate learning through the provision of feedback after you have undertaken an activity. By focusing on each of the six stages described below, you are more likely to engage critically with your learning experience.

1. Gibbs G (1988). *Learning by Doing: A guide to teaching and learning methods*. Further Education Unit, Oxford Polytechnic: Oxford



Domain 1: Person-centred care and collaboration

Effective communication is essential to all aspects of high quality patient care. The consultation between the pharmacist and the person is central to pharmacy practice and you need to have the right interpersonal skills, knowledge and attitudes to be able to consult effectively. This requires establishing a partnership with the person and reaching shared decisions which reflect the person's preferences and goals.

It is anticipated a lot of the knowledge and skills for this domain will have been introduced and developed throughout initial education and training. As you progress through post-registration foundation training, you will become more competent and confident at managing challenging and difficult conversations and conveying complex information to individuals receiving care and colleagues.

There is no additional information for this domain beyond the descriptors within the curriculum document.

Examples of how this area of practice could be evidenced

Mini-CEX

- Video analysis of a consultation with a person who presented for an asthma review in primary care.
- A telephone consultation with a person who had asked to chat through their medicines as they were fed up taking so many.
- You are observed consulting with a young teenager (and their parent) who asks to chat through different options for managing their acne.

Patient survey

- Reflecting on feedback received from several patients you have consulted with over the last month.

Case based discussion

- You have a remote discussion with your practice supervisor about a consultation you had with a South Asian person with type 2 diabetes. In addition to reviewing their

medicines, part of the consultation involved trying to empower the person to self-manage some of the lifestyle aspects of their diabetes. You provided some education around diet and physical activity. You discuss with your practice supervisor the

importance of understanding the person's beliefs and practices relating to diet, exercise and their general health beliefs and culture.

Reflective account

- You reflect on a few consultations you have found particularly challenging including a person who had low health literacy, a person who was very anxious about suddenly having to take medicines for tuberculosis, and when you had to communicate via a carer.

Direct Observation of Procedural Skills

- You are observed checking a person's peak expiratory flow rate in response to them overordering inhalers. You needed to use effective communication skills to facilitate the consent process and when undertaking the procedure as they felt uncomfortable having this done anywhere apart from their GP practice and felt like everyone was checking up on them unnecessarily.

Multi-source feedback

- You receive feedback from several colleagues including staff within your pharmacy, GPs/nurses/pharmacists/other practice staff from a couple of local GP practices, a district nurse and a manager from a care home that you supply medicines to.
- You receive feedback from the pharmacy and wider multidisciplinary team following a recent clinical placement/rotation.

Domain 2: Professional practice

The scope of a newly qualified pharmacist is broad, and it is not practical to include a list of all the presentations, conditions, and medicines related topics that you are expected to know about. It is expected you will be familiar with the management of common or serious (e.g. high mortality and/or serious implications) presentations and conditions that fall within therapeutic areas included in the GPhC registration assessment framework.

Throughout post-registration foundation training, you will expand and develop your knowledge, skills and attributes to be able to support services such as polypharmacy reviews, de-prescribing, medicines optimisation and medicines management in increasingly complex people.

Developing as a prescriber

'Prescribing' is used to describe many related activities, some of which will be undertaken by newly registered pharmacists from day one. Pharmacists are expected to be able to respond to and manage various minor illnesses and common clinical conditions, particularly in community pharmacy, through undertaking an assessment of the person and their condition, considering differential diagnosis, providing advice, and offering pharmacological, non-pharmacological and/or self-management options. In some cases, this will be under a Patient Group Direction (e.g. for urinary tract infections or the urgent supply of repeat medicines).

During post-registration foundation training, you are required to develop an enhanced skill set which will support you becoming an independent prescriber. This will include:

- obtaining a full history and performing clinical assessment skills
- managing uncertainty and clinical risk
- applying clinical reasoning and critical thinking to shared decision making
- agreeing the most appropriate treatment in partnership with the person
- ensuring appropriate follow up, monitoring, and referral arrangements
- communicating and documenting prescribing interventions
- taking responsibility for and justifying decisions
- being aware of and practising within own limitations

HISTORY,
EXAMINATION,
INVESTIGATIONS

DIAGNOSIS

TREATMENT
CHOICE

WRITING THE
PRESCRIPTION

MONITORING,
REVIEW AND
FOLLOW UP

PERSON-CENTRED, CLINICAL REASONING, SHARED DECISION MAKING, INFORMATION PROVISION

Data gathering and clinical assessment skills

To inform the initial management plan, you will need to obtain all the relevant information from the person, their carer/family and available information sources. This also involves using information from investigations, examination findings and other assessment tools.

DATA GATHERING

- Obtain full medical, social and medication histories, using clinical reasoning to target questions relevant to the presenting complaint/problem and the person's circumstances
- Select appropriate initial investigations and take an incremental approach to further investigations
- Use patient records and other information sources as appropriate
- Identify 'red flags' and complex cases early which require advice from more experienced colleagues or appropriate referral within an appropriate timescale
- Perform appropriate clinical assessments including physical examinations and mental/cognitive screening

2.3

CORE CLINICAL ASSESSMENT SKILLS

It is important all pharmacist independent prescribers have a core set of clinical assessment skills which they are competent to perform. The skills listed below are currently used most frequently in clinical practice and support identifying an acutely unwell or deteriorating person. You must be able to outline the indications for these assessments, demonstrate the correct technique, follow the appropriate procedures for gaining valid consent, and perform the assessments in an appropriate setting taking account of confidentiality, consent, dignity and respect.

Depending on your work setting and scope of practice, you may be required to develop competence in undertaking additional clinical assessments relevant to national/regional/local service delivery.

A range of different learning opportunities will support developing competency in the core clinical assessment skills. These may include simulated training in a clinical skills lab, observing experienced healthcare staff undertaking the listed clinical assessments, and conducting supervised clinical assessments.

CORE CLINICAL ASSESSMENT SKILLS

- Blood pressure (manual and automated)
- Heart rate and rhythm (manual and automated)
- Temperature
- Respiratory rate
- Peak expiratory flow rate
- Chest (respiratory) examination¹
- Ear, nose and throat examination
- Peripheral oxygen saturation
- Urinalysis
- Height, weight, body mass index
- Blood glucose (capillary)
- Calculate National Early Warning Score 2 to identify deteriorating patients
- Mental and cognitive state examination²
- Depression and anxiety screening³

1. includes inspection, palpation, percussion and listening to breath sounds
2. mini-mental state examination or similar
3. using a validated questionnaire

Additional guidance specifically relating to prescribing can be found in the [GPhC In practice: Guidance for pharmacist prescribers](#)

Examples of how this area of practice could be evidenced

Mini-CEX

- You consult with a person who presents in your pharmacy with symptoms which suggest a respiratory tract infection.

Case based discussion

- You discuss with your practice supervisor a person who came into your pharmacy at the weekend. Earlier in the week they had collected a prescription for trimethoprim for a urinary tract infection, but they had started to feel much worse and in addition to ongoing urinary symptoms were now feeling dizzy and breathless. You performed

clinical assessments to be able to calculate their National Early Warning Score 2 which was 5. This, in combination with the history of their presenting complaint and their symptoms, informed your decision to refer them to your local accident and emergency department for further urgent investigation and management, because they demonstrated features of sepsis.

Direct Observation of Procedural Skills

- A person presents to your pharmacy feeling dizzy since their blood pressure medicines were adjusted. You take a full history and measure their heart rate and blood pressure.

2.4

ANSWERING MEDICINE-RELATED AND CLINICAL ENQUIRES

You will receive medicine-related and clinical enquiries from health and social care professionals, people and their carers/family. You will also come across your own questions during the clinical management of people and will need to develop the skills to be able to translate uncertainty into answerable questions, and then apply the principles of evidence based practice. It is important you develop a structured approach to providing advice, use appropriate information sources, and develop your critical evaluation skills to aid your decision making. You are expected to be able to answer questions about medicines that the UK Medicines Information service consider to be level 1 or level 2.

Level 1 – simple enquires that can be answered using readily available sources such as the British National Formulary, Summary of Product Characteristics and/or local guidelines.

Level 2 – complex enquires that require the use of more specialist resources and/or multiple sources, but the answer or course of action is reasonably clear.

Further guidance and examples of the types of enquiries that would be considered level 1 and 2 can be found in the [UKMI guidance](#).

When answering such enquiries, you should be able to:

- Identify standard questions to ask the enquirer to obtain all relevant background information
- Clarify the key elements of the question and be familiar with the model PICO (Population, Intervention, Comparator and Outcomes) when approaching more complex clinical questions which require looking at the primary evidence base
- Plan a systematic approach to answering questions
- Use appropriate information sources and describe their advantages and limitations
- Understand the principles, strengths and limitations of evidence based practice
- Formulate an answer based on a combination of systematic critical evaluation of the literature (**see below**), clinical decision making skills and professional judgement
- Consider when it is appropriate to record the sources that have been used to answer the question and/or the response given, and do so in a suitable location and professional manner
- Use effective communication skills to deliver expert advice on medicines in a suitable and professional format that meets the needs of the recipient

You are required to weigh up the evidence from a variety of sources and decide if the findings are applicable to the person to inform clinical decision making and help deal with uncertainty. Knowledge and skills in this area include:

- Apply the hierarchy of evidence, ranging from case reports to meta-analysis, when critically evaluating the literature
- Design an effective search strategy
- Effectively search databases such as PubMed, Medline and/or EMBASE
- Interpret and evaluate evidence from primary research papers for validity, reliability, value and applicability
- Understand the application of basic statistics and interpret the results
- Evaluate the validity of studies using checklists such as [Critical Appraisal Skills Programme \(CASP\)](#) or [CONSORT](#)

THE BASIC STATISTICS YOU SHOULD BE FAMILIAR WITH INCLUDE:

- types of data (continuous, ordinal, nominal)
- descriptive statistics – including mean, median, mode, range, quartiles, variance, standard deviation,
- presentation of results – absolute risk, relative risk, hazard ratio, absolute risk reduction, number needed to treat, number needed to harm
- precision of results – confidence intervals, p-value
- population statistics including incidence and prevalence
- significance – clinical versus statistical
- causation and correlation

Training resources can be found at [Medicines Learning Portal](#), [Medicines Safety Portal](#) and the [Specialist Pharmacist Services \(SPS\) website](#). The following topics in the Medicines Learning Portal are recommended for newly qualified pharmacists:

| CLINICAL TOPICS | PROFESSIONAL TOPICS |
|---|---|
| <ul style="list-style-type: none"> • Administration • Adverse reactions • Interactions • Drug Handling • Children • Renal • Liver • Injection compatibility • Pregnancy • Breastfeeding | <ul style="list-style-type: none"> • Calculations • Communication • Critical evaluation • Decision making • Managing medicines • Research • Teaching |

Examples of how this area of practice could be evidenced

Mini-CEX

- Discussion with a person who is unsure about whether they should take a statin for secondary prevention.

Case based discussion

- You discuss with your practice supervisor undertaking a polypharmacy review with a person with multiple co-morbidities. You considered the number needed to treat for each of their medicines and used patient decision aids to support shared decision making. You also considered the limitation of the evidence base for this individual person with multiple co-morbidities.
- You discuss a case with your practice supervisor where the hospital consultant had recommended an unlicensed medicine for a child in your practice. The GP had asked your thoughts about it as he was not familiar with using the medicine in this age group. You did a literature review and couldn't find any evidence for using the medicine in this particular age group. You decided to contact the local paediatric pharmacy team at the hospital, and after a helpful discussion, they forwarded

you their local guideline which is based on data collected through a national paediatric group and some case reports.

Reflective account

- You reflect on your approach to answering an enquiry from a GP about the choice of antibiotic for a respiratory tract infection in a person who is allergic to penicillin and takes apixaban for atrial fibrillation.

2.8

DATA AND DIGITAL TECHNOLOGIES

Digital technology is integral to underpinning the transformational change in services to deliver integrated person centred care. You require digital capabilities to be able to use information technology systems safely and effectively but also need to understand the need for systematic ways of recording and exchanging health data to enable healthcare systems to talk to each other (interoperability).

Data should be used at an individual level to inform clinical decision making and on a larger scale to support organisational change and transformation. It is therefore necessary to have a working knowledge of the health data landscape, analytical methodologies and how to communicate the findings to a range of different people.

Digital health technology directly available to the public is growing exponentially with the availability of apps and wearables which can empower people to self-manage and be more involved in shared decision making. Healthcare professionals need to understand the possibilities of such technologies, and the ethical and patient safety considerations to be able to provide informed advice to people.

Additional knowledge/skills to support achieving this outcome include:

- Describe the use, function, benefits and limitation of established devices, applications, software and systems used in health and social care systems (e.g. medicines management, electronic health records, prescribing systems, telehealth, remote technology)
- Use interoperability standards for structuring clinical information, and medicine and clinical terminology including the NHS dictionary of medicines and devices (dm+d) and Systematised Nomenclature of Medicine Clinical Terms (SNOMED CT)
- Use different techniques and methodologies to analyse, interpret and evaluate information, data and content
- Use basic statistics including variance, probability, mean, median and percentiles and identify trends, outliers and patterns
- Use data visualisation tools to transform data into meaningful information including charts, plots, graphs and tables

The following resources may be helpful for pharmacists who are interested in further professional development in this area:

- [Faculty of Clinical Informatics](#)
- [A Health and Care Digital Capabilities Framework \(NHS England\)](#)

Examples of how this area of practice could be evidenced

Mini-CEX

- You support a teenager to improve their diabetic control through flash glucose monitoring.

Case presentation

- You present a case about working with a person who was keen to use wearables to support blood pressure monitoring and help them adopt a healthier lifestyle after being newly diagnosed with ischaemic heart disease.

Quality Improvement Project Assessment Tool

- Using the clinical information technology system, you run a report on formulary adherence to proton pump inhibitors by GP practice in your area. You target the practices with the highest non-adherence and run some small tests of change to try and improve adherence. You measure the impact by running a similar report six months later.

LEADER

- You develop, test and implement a new process for identifying people with diabetes who should be prioritised for medication review. The process involves running a search and report in the clinical information technology system for people with hypoglycaemia and a low haemoglobin A1c (HbA1c). People are then invited to clinic for a review by the pharmacist.

Other

- You include a report in your e-portfolio which presents analysis of prescribing data to identify people over-requesting reliever inhalers who were then invited for a medication review and an education session with a member of the team. You plan to measure the impact of this intervention by looking at asthma control test scores and requests for reliever inhalers over the following year.

Domain 3: Leadership and management

Developing effective leadership and management skills are essential to delivering high quality care, driving service redesign and improvement, and ensuring cohesive multidisciplinary teams work in partnership with patients to achieve the best outcomes.

ALL

LEADERSHIP STYLES, PRINCIPLES AND TECHNIQUES

Use a range of leadership styles, principles and techniques

- Identify own leadership approach and the impact this has on others
- Moderate own leadership behaviour to improve engagement with others
- Use a range of influencing, persuading and negotiating techniques for clinical and non-clinical activities

3.2

TEAM WORKING

- Describe the theories of teamwork, the different team roles (e.g. Belbin) and how to build an effective team
- Apply the principles of giving and receiving effective feedback using common feedback models

3.3

SERVICE DEVELOPMENT

- Outline processes for developing and commissioning new services
- Describe methods to evaluate the impact of systems, processes and services

3.5

QUALITY IMPROVEMENT

- Use change management theory to improve systems and processes
- Describe the different steps involved in completing the audit cycle
- Describe quality improvement models and theories including Plan, Do, Study, Act
- Use quality improvement tools (e.g. run charts, process maps, driver diagrams)
- Use data to assess improvement needs and measure improvements

3.6

RAISE CONCERNS, PATIENT-SAFETY, RISK MANAGEMENT

- Use risk management tools to reduce risk, investigate errors/near misses and prevent recurrence
- Recognise common causes of medication errors and use systems to reduce them
- Define local and national significant event reporting systems
- Use tools and systems to support safe prescribing
- Use conflict management theories and approaches to resolve conflict
- Follow local process for dealing with complaints

3.9

MANAGE TIME AND RESOURCES

- Employ recognised techniques and approaches to prioritise work and improve time management
- Describe approaches to manage resources, people and performance
- Use models for building own resilience e.g. circle of concern, circle of influence

Examples of how this area of practice could be evidenced

Direct observation of non-clinical skills

- A person was supplied with the wrong insulin from the pharmacy and suffered from hypoglycaemia as a result. You lead a review of the incident and work with your team to put some measures in place to reduce the risk of such an error recurring.

Quality Improvement Project Assessment Tool

- In your daily practice, you identify several occasions where people don't receive their medicines in hospital ('missed doses') and the most common documented reason on the medicine chart is 'medicine is not available'. You discuss with the senior nurse and pharmacy technician and undertake a quality improvement project to reduce missed doses.

LEADER

- There is a high prevalence of hepatitis C in your local area and there are many people who access the needle and syringe programme in your community pharmacy. You've read about the blood-borne virus screening service delivered by community pharmacies and think this would work well in your pharmacy and support the needs of your local population. You discuss with your manager who agrees this is an important public health intervention you could get involved in and she supports you with the commissioning process.

Multi-source feedback

- You have developed a new process with the local care home and GP practice for organising the service for supply of medicines to care homes which aims to reduce wastage. You receive feedback from several health and social care colleagues about your involvement in setting up the process.

Domain 4: Education

Pharmacists are expected to contribute to the education, training and development of others. This may include formal or informal teaching, mentoring and supervising others.

4.4

ROLE MODELLING AND MENTORSHIP

- Describe effective role model and mentoring behaviours and skills
- Describe the factors which help to establish a supportive environment

4.5

PROVIDE EDUCATION AND TRAINING

- Identify participants' learning needs
- Outline adult learning principles
- Create effective learning environments
- Develop training plans including aim and learning outcomes (see Bloom's Taxonomy)
- Describe different learning styles and adapts teaching method to accommodate
- Describe different teaching styles and adapt approach depending on context, content and audience
- Evaluate and adapt education sessions to support continuous improvement
- Apply the principles of giving and receiving effective feedback including using common feedback models

Examples of how this area of practice could be evidenced

Multi-source feedback

- You have been supervising and / or mentoring students and more junior colleagues during their placements and ask them for feedback.

Teaching observation

- Your practice supervisor observes you delivering a training session that you developed for pharmacy staff on the management of acute pain.
- One of the social care leads requests a training session for their team about supporting people with their medicine and observes you delivering a remote lunchtime learning session.
- Your practice supervisor observes you delivering a training session for care home staff about medicines administration for patients with swallowing difficulties (remote or in person).

Other

In addition to feedback received through the teaching observation supervised learning event tool, you may wish to seek feedback from some/all of the people who attended your training session. You can upload evaluation forms (you might design one specific to your session or use an existing template).

Domain 5: Research

Improving patient outcomes is at the heart of pharmacy practice research and everyone should get involved. Research is the process of retrieving generalisable new knowledge by addressing clearly defined questions using systematic and rigorous methods.

The difference between research, service evaluation and audit is described in the Health Research Defining Research table.

Pharmacists in all settings can engage in research in various forms ranging from participating in large-scale, multi-site projects led by others, to developing the skills to run smaller projects to improve the understanding of local or practice specific issues. There are several benefits of engaging in research including:

- Improved patient care and patient outcomes
- Strengthening the services pharmacists and their team can provide, demonstrating the value and effectiveness of these services
- Building the evidence base to drive commissioning of new services or delivering services in a different way
- Contributing to growing the evidence base within health service research
- Developing professionally and personally

Understanding research design and statistical concepts will support you critically evaluating written or graphical information to inform clinical decision making. You are expected to understand basic research methodology and how different types of research activity may contribute to patient care, to support you being able to engage effectively in research opportunities.

5.1

INVOLVED IN RESEARCH ACTIVITIES

- Describe common research study designs
- Describe common research methods including qualitative and quantitative
- Describe common sampling methods
- Outline the principles of formulating a research question and the structure of a protocol
- Outline the principles of good research practice and apply to any studies you are involved in
- Explain the role of ethics committees and when ethical approval may be required
- Explain research governance principles including consent, confidentiality and data management
- Discusses why and how to incorporate patient and public involvement in research

Examples of how this area of practice could be evidenced

There will be several different ways to evidence the research outcome and you may find supervised learning events and/or your own evidence format works best.

LEADER

- You work with some senior colleagues to evaluate the impact of the local pharmacy triage tool which prioritises people for review.

Direct observation of non-clinical skills

- Your pharmacy participates in a commercial or locally led clinical trial which is something you haven't been involved with before. You present a summary of the clinical trial protocol to the team and explain what everyone's roles and responsibilities will be.

Reflective account

- You carried out patient interviews as part of a larger research project run by local GP practices, to explore adherence to secondary prevention medication.
- You participated in a focus group that is part of a research project the university is running.
- You collected data for a project undertaken by others, such as a colleague doing their MSc or academic researchers, ensuring the relevant consent and governance arrangements were adhered to.

Journal club presentation

- You were involved in monitoring people's peak flow who consented to participate in a local research project exploring the impact of inhaler counselling on asthma outcomes. You present the project (method, results etc) at a local meeting and what this means for your practice going forward.

Other

- You co-authored an abstract which was submitted to a conference or journal about a project you were involved in and include the abstract in your e-portfolio. You also decided to include a reflective account about writing an abstract and the peer review process.
- You prepared a written report of a project you were involved in as part of an assignment for university and include this in your portfolio.

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